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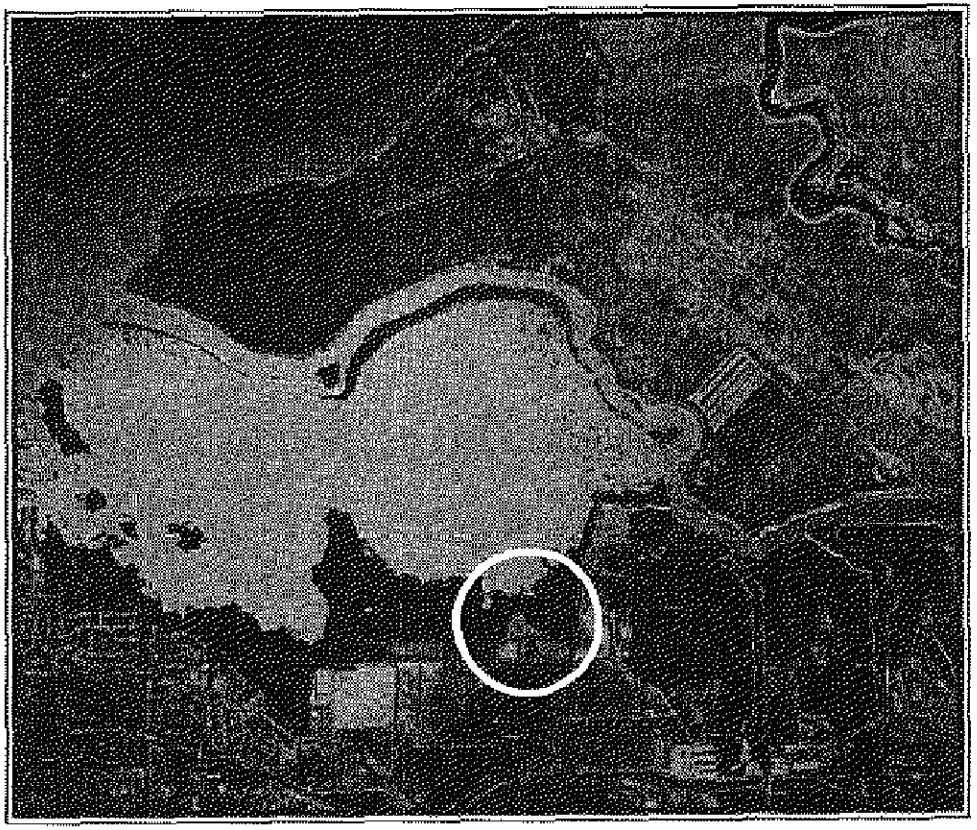
THE

DELTA SCIENCE CENTER

AT BIG BREAK



A CONFLUENCE OF RESTORATION & EDUCATION

A 1997 Category III Proposal
for the CALFED
Bay-Delta Program

JUL 28 1997

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I. EXECUTIVE SUMMARY

a. A Confluence of Restoration and Education
THE DELTA SCIENCE CENTER AT BIG BREAK

b. The project is to complete the design, construction documents and permit process necessary to build The Delta Science Center in Oakley, California. The preliminary design of the proposed facilities and programs focuses vital public attention on the Bay-Delta system. Central to the project design is the inclusion of the wastestream of the Ironhouse Sanitary District, a sewage plant on the shores of Big Break Lagoon along the San Joaquin River. With the cooperation of a pro-active sanitary district we can demonstrate (1) the multi-faceted benefits of using effluent to create riparian habitat, wetlands and uplands, (2) the effectiveness of constructed wetlands for wastewater treatment and (3) the untapped potential of using high quality effluent to replenish the fresh water flows to the Bay-Delta system.

This confluence of education and restoration can, in time, expand across 4,000 acres of Ironhouse Sanitary lands, including Jersey Island, one of the main Delta barrier islands. In collaboration with its partners, particularly the East Bay Regional Park District, the Science Center can manage in perpetuity a program that communicates and demonstrates the mission and long-term goals of CALFED. It can structure a program of science education and research, resource management, public programs and exhibitions all focused on a restoration project that addresses Bay-Delta stressors and the needs of priority species and habitats. The potential is great, and the need for public understanding and involvement is even greater.

c. Our approach is to develop a highly qualified, talented and creative team to turn The Delta Science Center's preliminary design into a fully delivered product, namely a completed package of construction drawings, permitted, bid and ready to build. There are three phases, multiple tasks and a 22-month schedule.

d. A partnership with CALFED would greatly strengthen and endorse the existing Science Center collaboration, and free it to do what it can do best: raise capital construction costs, O&M funds and an endowment. We can only hope that this proposal justifies CALFED involvement, an involvement that can be a collaborative, purposeful, and deliberate process.

e. The budget request of CALFED is $1,375,200 and offers a proposed match of $400,000 by the East Bay Regional Park District and up to $585,000 by The Delta Science Center. The total project cost, including the construction of the center, is $12,664,700. The only third party impacts known are beneficial ones for the people and wildlife of California.

f. The Delta Science Center collaboration represents a diversity of Delta stakeholders including government, industry, agriculture, educational and environmental interests. The professional team we would like to use for this project are all leaders in their respective fields of environmental engineering, design, architecture and landscape architecture.

g. Because the project will be permitted under State Waste Discharge Requirements, there are institutional guarantees that habitat objectives will be met over time, and their management and monitoring are enforceable and efficacious in perpetuity.

h. There is strong local support for this project, as well as State and national support. Had we known earlier that CALFED would accept letters of recommendation, we would have provided ample documentation of widespread support. As the project is designed, it will be coordinated and integrated with existing programs. We believe The Delta Science Center is fully compatible with CALFED objectives and its mission to develop a long-term comprehensive plan for the Bay-Delta system.

II. TITLE PAGE

a. THE DELTA SCIENCE CENTER at Big Break

b. Stephen Barbata, Executive Director
86 Orchard Estates Drive
Walnut Creek, CA 94598
phone & fax: 510-947-1473

c. Nonprofit public benefit corporation
The East Bay Regional Park District is the fiscal agent for The Delta Science Center

d. Tax Identification Number: 23-7011877

e. Technical and financial contact person is same as above.

f. Implementation collaborators are:

ENGINEERING AND WATER QUALITY
Montgomery Watson
1340 Treat Blvd. #300
Walnut Creek, CA 94596

SCIENCE ADVISORS
To be addressed by a Request for Proposal in Design Development Phase

ARCHITECTURE
Fernau & Hartman
2512 Ninth St. No. 2
Berkeley, CA 94710

LANDSCAPE ARCHITECTURE
Ron Lutsko, Jr.
Pier 1½, The Embarcadero
San Francisco, CA 94111

PROGRAM & EXHIBITION DESIGN
William S. Wells Design
506 Red Hill Avenue
San Anselmo, CA 94960

PROJECT DIRECTOR
Stephen Barbata
Executive Director
The Delta Science Center
86 Orchard Estates Dr.
Walnut Creek, CA 94598

g. RFP project group: primary type is Group 3 (Other Services); secondary type is Group 1 (Construction)

III. PROJECT DESCRIPTION

a. Project Description and Approach

The project is to complete the design, construction documents and permit process necessary to build The Delta Science Center at Big Break, in Oakley, California. Our goal is to create a significant educational institution focused on public understanding, stewardship and wise use of Bay-Delta resources. Central to the project's development is the inclusion of the wastestream of the Ironhouse Sanitary District, a sewage treatment plant on the shores of Big Break Lagoon along the San Joaquin River. Biological filtration, in the form of constructed riparian corridors, treatment marshes and primeval Delta habitats, will apply science, technology and public education to habitat restoration and enhanced ecosystem health. The extent of the proposed treatments and restorations is a pilot/demonstration project on thirty acres of degraded pastureland. Its success, encouraged by strong public support and participation, can in time expand across 4,000 acres of Ironhouse Sanitary District lands, including Jersey Island, one of the main barrier Delta islands.

Our approach is to build a strong private-public partnership that can manage and fund the design, construction and ongoing operation of The Delta Science Center. The strength of the center resides in its collaborators, all represented on The Delta Science Center Board of Directors. The collaboration includes: East Bay Regional Park District, Contra Costa County, Ironhouse Sanitary District, Contra Costa Water District, California State University Hayward, Contra Costa Community College District, all primary and secondary schools in East Contra Costa County, the Sierra Club and Audubon Society, PG&E Bay-Delta Power Plants, Emerson Dairy and Contra Costa County Mosquito Abatement and Vector Control. Their collaboration in partnership with CALFED can truly realize a confluence of education and restoration for the people and wildlife of California.

The attached schematics are intended to provide an overview of the proposed facilities and programs of The Delta Science Center.

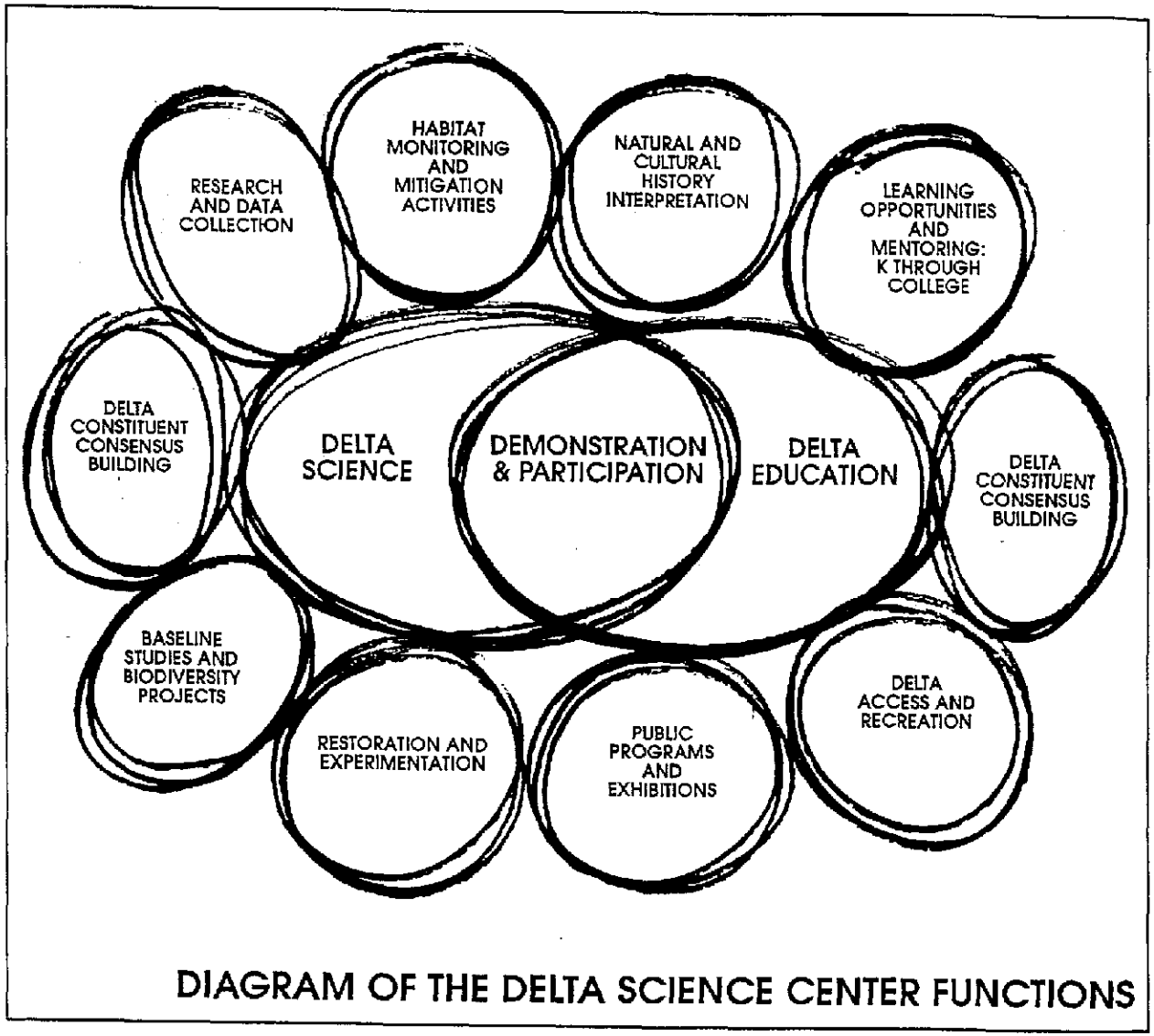
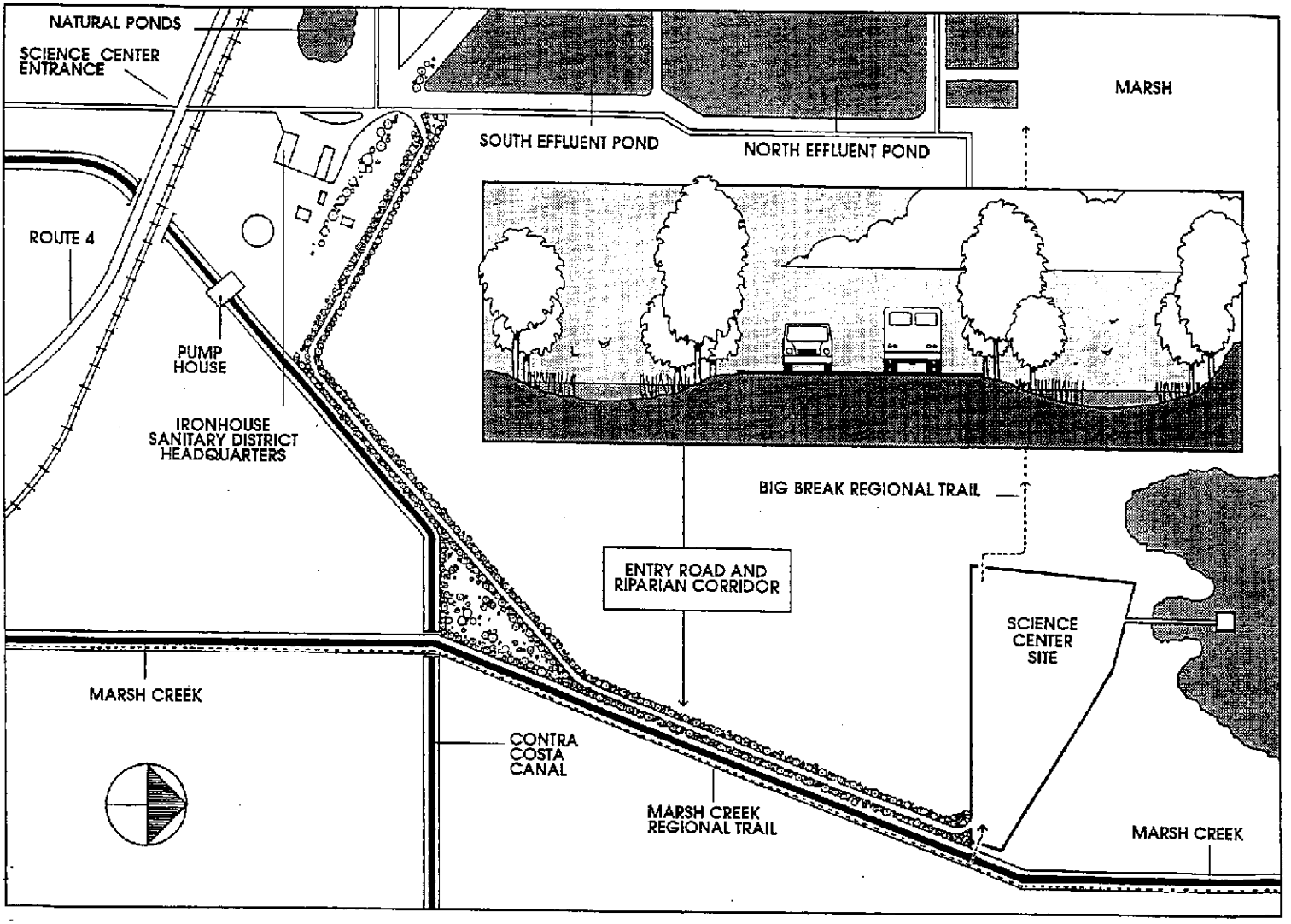


DIAGRAM OF THE DELTA SCIENCE CENTER FUNCTIONS

SITE PLAN & ENTRANCE



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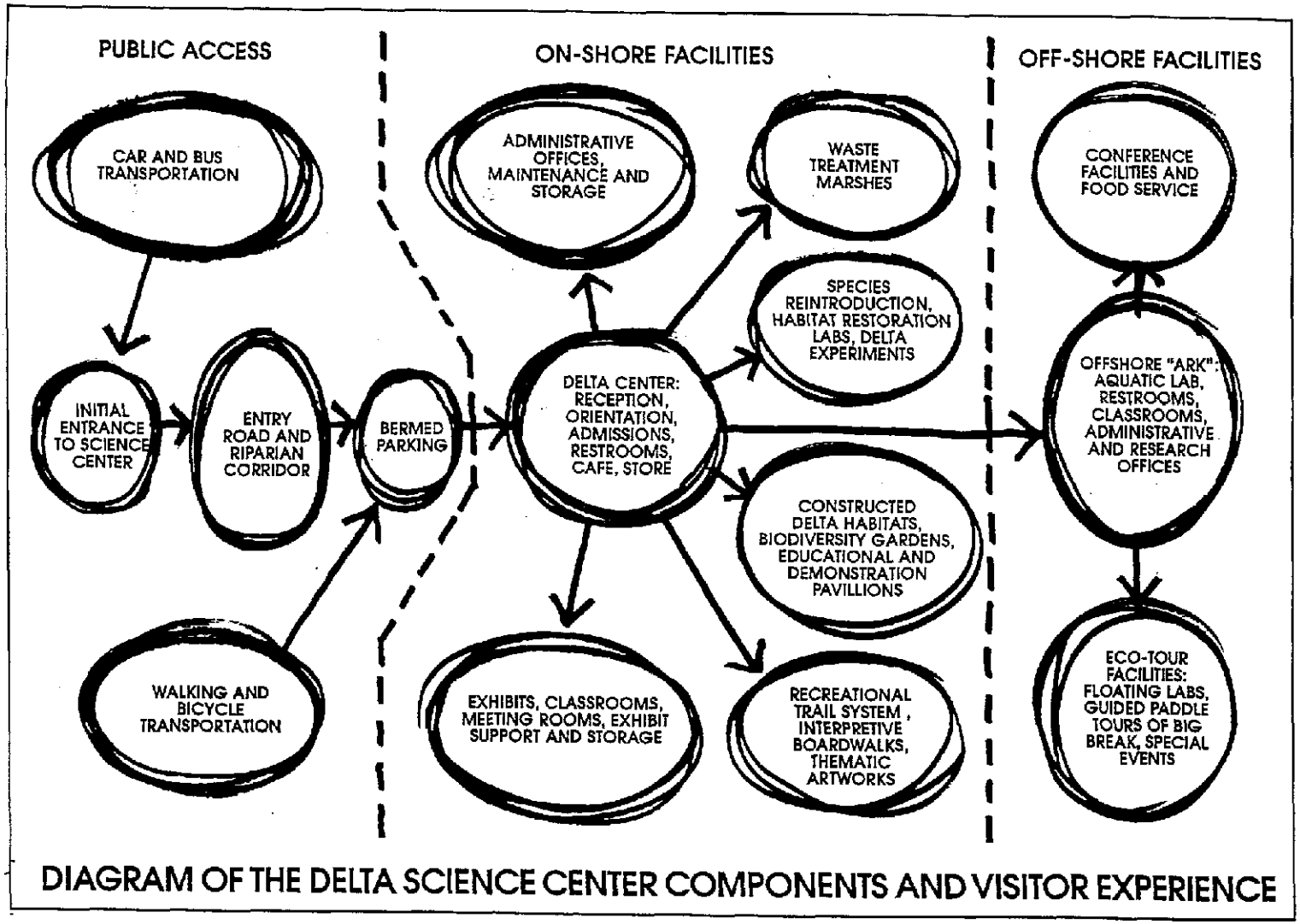

DIAGRAM OF THE DELTA SCIENCE CENTER COMPONENTS AND VISITOR EXPERIENCE

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DELTA SCIENCE CENTER LAYOUT

1 ENTRY ROAD AND RIPARIAN CORRIDOR: The one mile entry road lies between two riparian zones which biologically treat human waste while supporting forest, scrub and aquatic habitats.

2 BERMED PARKING LOT: Visitors arrive to a 300 car non-asphalt parking area which drains into the waste treatment marshes and is shielded from view by bermed earth.

3 DELTA CENTER: All visitor site access is through the Delta Center, which acts as a reception, admissions and staging area for all visitor experiences. An example of low impact and energy use, the Center includes administrative offices, public restrooms, a store, cafe, and exhibits about Delta history and ecology.

4 WASTE TREATMENT MARSHES: Regional sewage is biologically treated to provide a source of clean water, add biomass, and increase the public understanding of their role in natural waste cycles.

5 CONSTRUCTED DELTA HABITATS AND BIODIVERSITY GARDENS: This area includes walking paths and pavilions set within a constructed version of the primeval California Delta, complete with a diversity of plant communities and habitats.

6 SPECIES REINTRODUCTION, HABITAT RESTORATION LABS, DELTA EXPERIMENTS: Here Center staff and the public grow and experiment with the diverse Delta plant communities, exploring new technologies including biomass fuels, breeding rare species, wildlife cropping, workable levees and more.

7 INTERPRETIVE BOARDWALKS: These provide access to the offshore "Ark", via 20 acres of Big Break marsh, as well as guided demonstrations and educational experiments.

8 OBSERVATION POSTS: These elevated classrooms provide new windows on Delta wildlife.

9 OFFSHORE "ARK": Here the visitors can participate in aquatic lab experiments perched on stilts above Big Break. Demonstrations and other educational activities and events take place in the lab, classrooms and conference facilities.

10 FLOATING LABS & ECO-TOURS: The fleet of specially equipped boats, "aqua-labs" and kayaks provide special access, participatory education, applied science and natural systems reconstruction.

11 JERSEY ISLAND: Located just across Big Break, this island is the ideal site for future experiments and explorations into the balance between human and biological needs.

12 MARSH CREEK RESTORATION: Flood control, mining and agriculture have diminished the productivity of this stream which drains the East side of Mount Diablo. Home to wildlife including salmon and river otter, it's restoration is a worthy focus of the Science Center's energy and resources.

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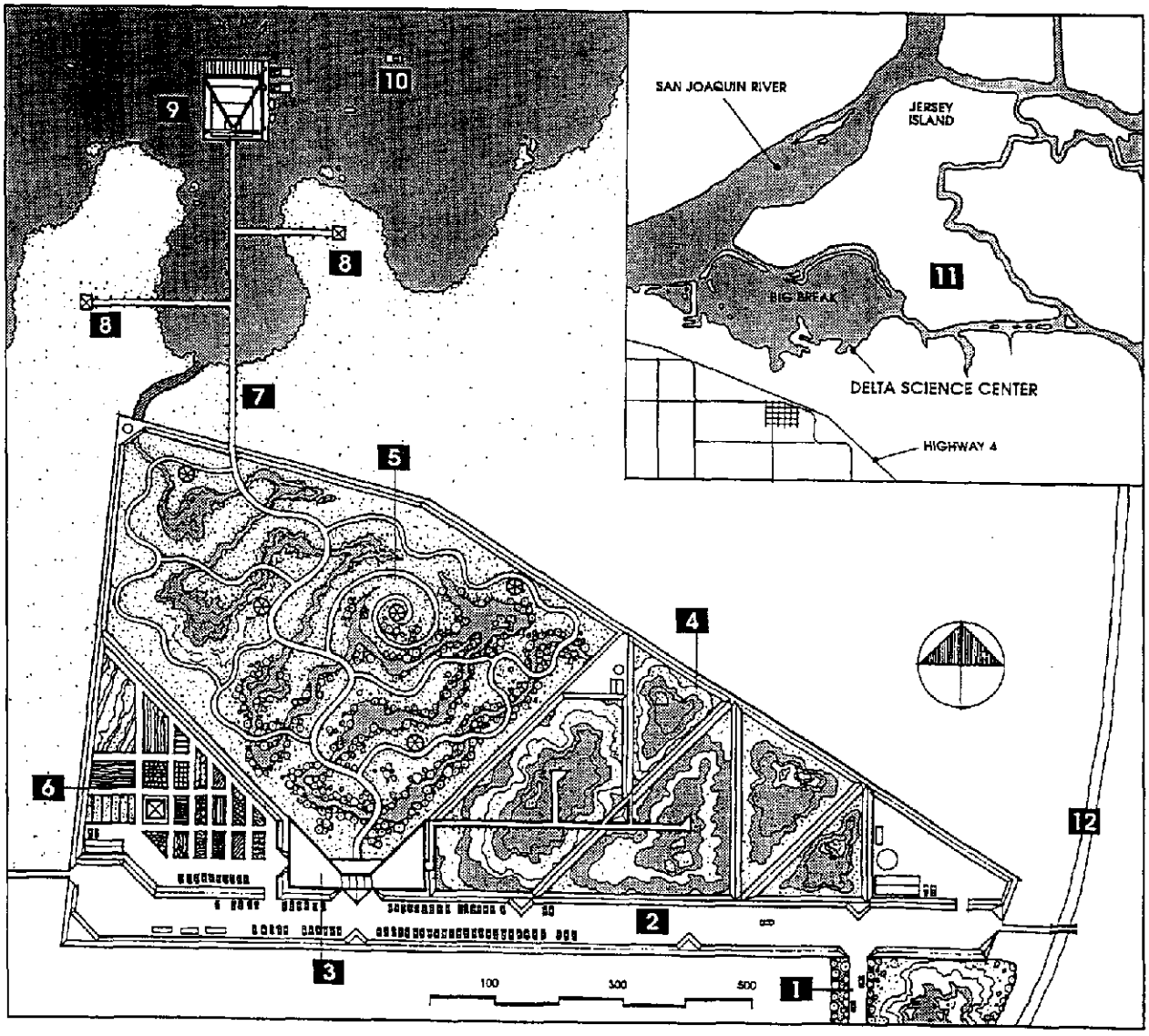
DELTA SCIENCE CENTER LAYOUT



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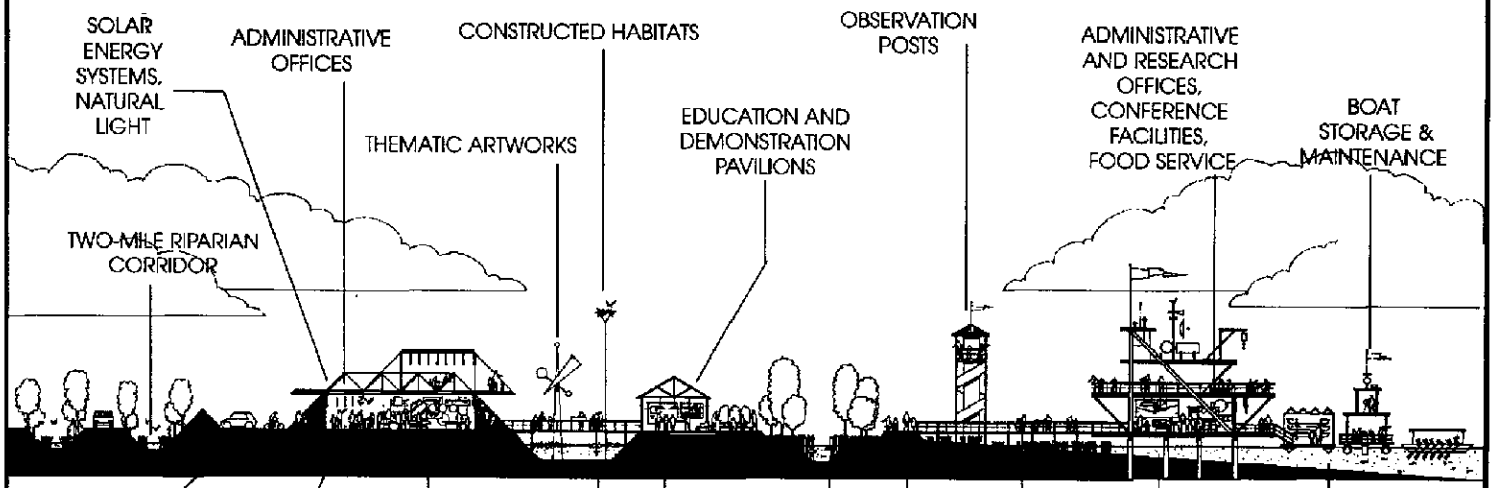
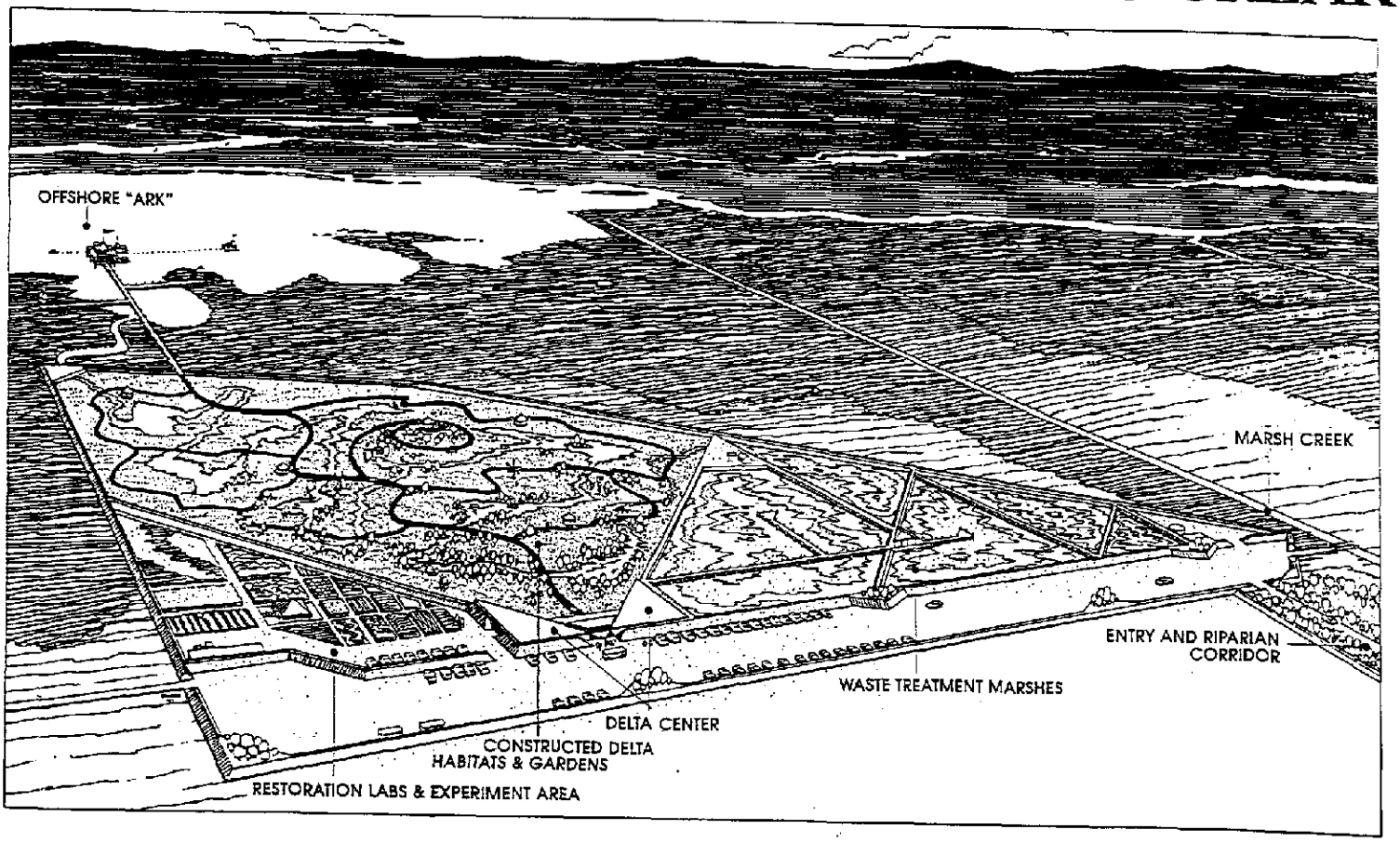
A SCHEMATIC SECTION OF PROPOSED COMPONENTS AND VISITOR EXPERIENCES AT

THE DELTA SCIENCE CENTER AT BIG BREAK



AERIAL VIEW OF

THE DELTA SCIENCE CENTER AT BIG BREAK



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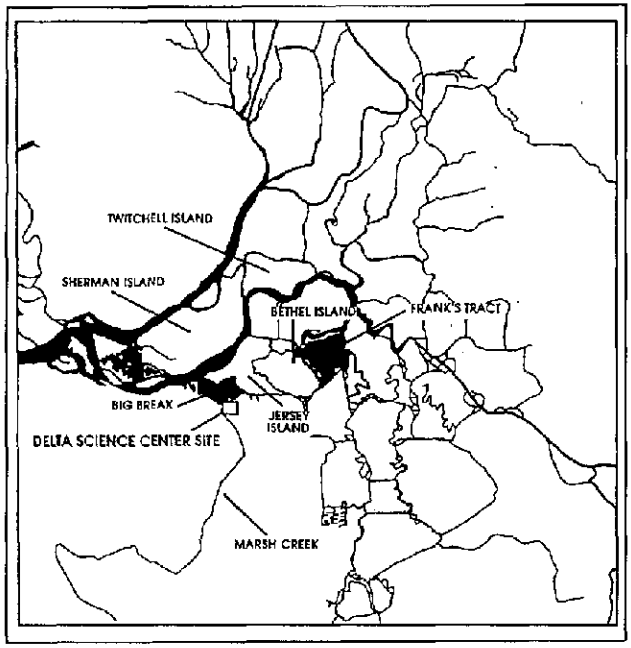
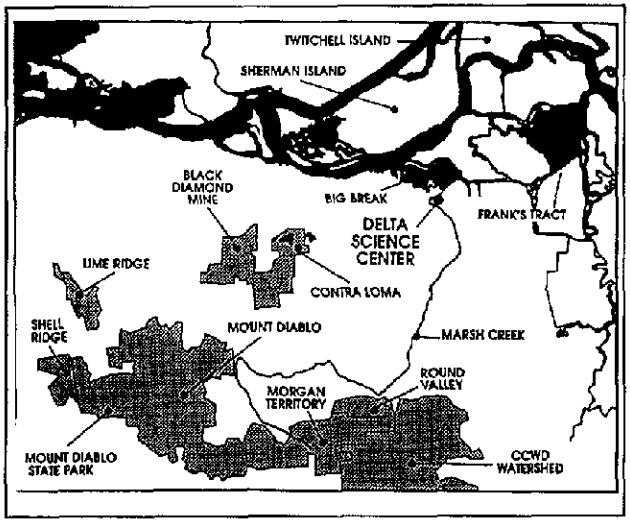
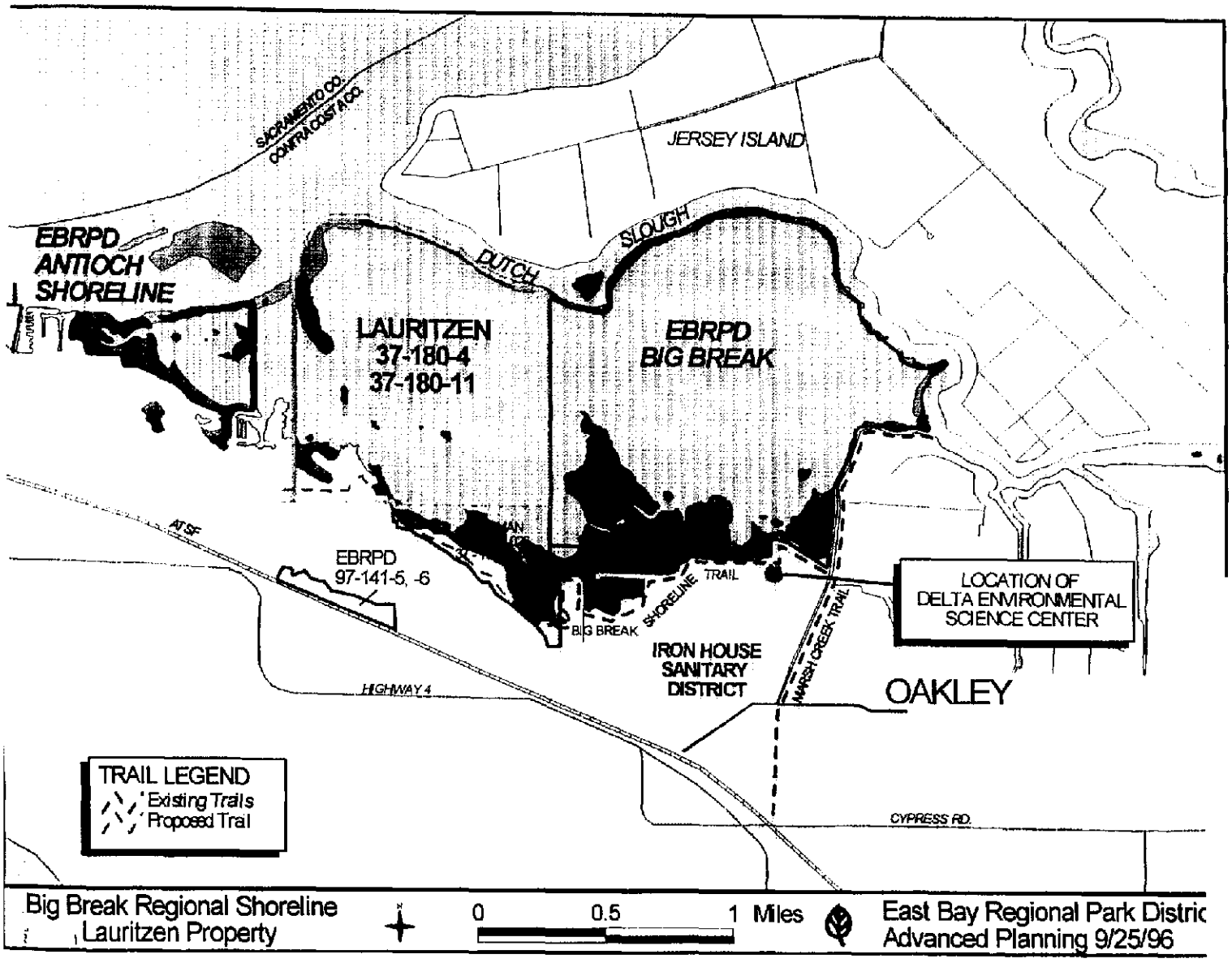
b. Location and Geographic Boundaries

The site for The Delta Science Center at Big Break is located near Highway 4 in eastern Contra Costa County in the town of Oakley. To the north and west are freshwater marshes and Big Break Lagoon, a public trust acquisition project of the East Bay Regional Park District. To the south are grazing and agricultural lands owned by Ironhouse Sanitary District. To the east is Emerson Dairy. While the site itself is approximately 30 acres, the geographic sphere of influence for The Delta Science Center has great potential in adjacent wetland and upland sites. Significant public projects on Sherman and Twitchell islands, Holland's and Frank's tracts, provide great opportunities for public education and access, research and collaborative restorations based on the facilities and programs designed by the Science Center. Contiguous to the Science Center site are significant geographic markers including Big Break, Jersey Island, the Delta confluence with Marsh Creek, the Contra Costa Canal and its intersection with Marsh Creek. All of these geographies and jurisdictions/owners are represented on the Science Center Board of Directors, creating an immediate sphere of influence of 6,000 plus acres on the Delta waterscape.



Upland connections are significant as well, centered on the Marsh Creek drainage, weaving together watersheds of Mt. Diablo, Morgan Territory, Round Valley and Los Vaqueros. Existing East Bay Regional Park District trail systems (Delta/De Anza, Marsh Creek, Big Break Shoreline) and a proposed trail collaboration with Contra Costa Water District (at Los Vaqueros Dam) will provide direct access and upland links to the Science Center site. These upland connections are important, owing to the Science Center's long-term goal to restore fall-run Chinook salmon in Marsh Creek, while also restoring threatened native fisheries upstream.





ADDENDUM D ACQUISITION MAP

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c. Expected Benefits

The strongest and most important stressor addressed by the proposed Delta Science Center is *Human Disturbance* in the form of an under-educated, under-informed citizenry. Taking a 21st century view of the Bay-Delta system, we must not underestimate the value and importance of an educated public to restore ecological health and improve Delta water management. Public discussion, understanding and involvement, made manifest in public opinion and at the ballot box, will have profound long-term effects on the mission of CALFED and goals of Category III. Building a public forum on the edge of the Delta can bridge science, technology, education and public policy to fully engage the critical thinking skills Californians need to manage the most important natural resource in the State.

As envisioned, The Delta Science Center has the necessary scale, budget and collaboration needed to tell the whole Delta story from its geologic origins to the contemporary need for water diversions, from the Delta Accord to CALFED's long-term comprehensive plan. Our Science Center collaboration is balanced in its approach, and promises facilities, programs, exhibitions and on-site restorations built to the finest standards of creativity and workmanship. Thanks to the CALFED process, we have received and continue to receive a workable outline for the design development of Science Center exhibitions, changing exhibitions (rotated around the State), programs and research proposals. With your cooperation and help, the comprehensive CALFED plan can be adapted and given visual form by architects, designers and artists.

Beyond building facilities, research laboratories, public programs and exhibitions focused upon environmental stressors, priority species and habitats, the Science Center intends to anchor those educational benefits in on-site restorations and demonstrations. Thanks to the cooperation of the Ironhouse Sanitary District and ongoing discussions with the Central Valley Regional Water Quality Control Board, we intend to redirect 2 to 8 MGD of sewage effluent from the support of degraded pasture, mowed by cattle and sheep, to the restoration of Delta habitats and species. Using effluent, we intend to construct two miles of new riparian corridors (along our entrance road), 3.5 acres of biological treatment marshes (polishing marshes) and 6.5 acres of constructed Delta habitats. Montgomery Watson, the engineers of record for Ironhouse, are designing the system based upon two options: maintain the existing regulatory approval and build a closed land-based system or seek new permits for an open discharge to Big Break or the San Joaquin River. While both options address Category III goals, the open system clearly offers more benefits. The cost/benefit and regulatory analysis of the two options will be available in October 1997 and we seek the input of CALFED in the final decision. The attached table outlines the full range of species, habitats and stressors addressed by the two alternative discharge proposals.

Our familiarity with this site, its context, potential limits and opportunities, has directed a preliminary design that identifies CALFED interests to be addressed by the Design Development phase for which we seek funding. Work to date acknowledges that:

The Big Break area is a significant natural resource area identified and articulated in publications including —

Delta-Estuary. California's Inland Coast, State Lands Commission, 1991
The Sacramento/San Joaquin Delta Wildlife Habitat Protection and Restoration Plan, California Dept. of Fish and Game/U.S. Fish and Wildlife Service, 1980
West Delta Water Management Program, Dept. of Water Resources, 1988; and
The Atlas of Tidal and Formerly Tidal Wetlands in Contra Costa County, Community Development Department, 1992.

The ongoing acquisition of Big Break by the East Bay Regional Park District and a coordinated management plan with The Delta Science Center will preserve, enhance and interpret one of the few *shallow aquatic habitat(s), less than 9 feet deep from mean high tide* remaining in the western Delta. Completed acquisition and a built science center on Ironhouse, will positively impact 6,000 acres in perpetuity.

An open discharge of 2 to 8 MGD of high quality effluent water, combined with an upland-wetland gradient will add to the productive edgewater habitats for the following priority species:

- Delta smelt — the 1992 Status and Trends Report by the San Francisco Estuary Project shows Big Break as one of the last strongholds for this species;
- longfin smelt and Sacramento splittail, both of which are known to spawn in the shallow waters of Big Break;
- fall-run Chinook salmon and steelhead trout, both of which use Big Break and migrate up Marsh Creek, San Joaquin River, and Sacramento River;
- green sturgeon which are known as occasional users of Big Break;
- other species, including white sturgeon, striped bass and American shad would also benefit, owing to the increased productivity of insects and zooplankton in shallow aquatic habitat with emergent vegetation.

A pro-active sanitary district has endorsed preliminary design which will benefit priority habitats in addition to *shallow aquatic habitats*:

- seasonal wetland and aquatic habitats dominate Ironhouse Sanitary District lands, owing to its need to settle 2 MGD to 8 MGD of effluent on land. With or without an open discharge permit, Ironhouse is open to managing part or all of its effluent on land (*agricultural wetlands*) to maximize habitat for species such as black rail, greater sandhill crane (both observed on site), as well as various species of the shorebird and wading bird guild, waterfowl category, and neotropical migratory bird guild. The plan, in time, can be enlarged to encompass 3,500 additional acres on Jersey Island;
- shaded riverine aquatic habitat will be restored in a two-mile riparian corridor built with stream meanders and vegetated with species such as Fremont cottonwood and valley oak. The tree canopy will reduce water temperatures and provide nesting and roosting habitat for a myriad of birds, potentially including Swainson's hawk and western yellow-billed cuckoo.

Whether tidal or nontidal, the restored wetlands are also expected to increase habitat and resources for western spadefoot, California tiger salamander, red-legged frog, western pond turtle, the giant garter snake and California legless lizard.

TABLE 1 - SPECIES, HABITATS, AND STRESSORS ADDRESSED BY DELTA SCIENCE CENTER	Zero-Discharge Alternative	Big Break Discharge Alternative	Educational Exhibits and Projects
SPECIES EXPECTED TO BENEFIT			
Delta Smelt		X	X
Longfin Smelt		X	X
Splittail		X	X
White and Green Sturgeon		X	X
Chinook Salmon		X	X
Steelhead Trout		X	X
Striped Bass		X	X
American Shad		X	X
Resident Fish Species		X	X
Marine/Estuarine Fishes and Large Invertebrates		X	X
Bay-Delta Aquatic Foodweb Organisms	X	X	X
Western Spadefoot	X	X	X
California Tiger Salamander	X	X	X
California Red-Legged Frog	X	X	X
Giant Garter Snake	X	X	X
Western Pond Turtle	X	X	X
Swainson's Hawk	X	X	X
Black Rail	X	X	X
Greater Sandhill Crane	X	X	X
Western Yellow-Billed Cuckoo	X	X	X
Bank Swallow			X
Riparian Brush Rabbit			X
Shorebird and Wading Bird Guild	X	X	X
Waterfowl	X	X	X
Upland Game	X	X	X
Neotropical Migratory Bird Guild	X	X	X
HABITATS TO BE CREATED			
Tidal Perennial Aquatic Habitat		X	X
Nontidal Perennial Aquatic Habitat	X		X
Delta Sloughs (Dead-end)		X	X
Delta Sloughs (Open-ended)			X
Midchannel Islands and Shoals			X
Fresh Emergent Wetland	X	X	X
Seasonal Wetlands	X	X	X
Riparian and Riverine Aquatic Habitats	X	X	X
Inland Dune Scrub Habitat			X
Perennial Grassland			X
Agricultural Lands	X	X	X
STRESSORS ADDRESSED			
Water Diversions			X
Habitat Fragmentation	X	X	X
Water Temperature		X	X
Levees, Bridges, and Bank Protection			X
Dredging and Sediment Disposal			X
Invasive Aquatic Plants	X	X	X
Invasive Aquatic Organisms	X	X	X
Invasive Riparian and Salt Marsh Plants	X	X	X
Non-Native Wildlife	X	X	X
Predation and Competition		X	X
Contaminants			X
Fish and Wildlife Harvest			X
Disturbance	X	X	X

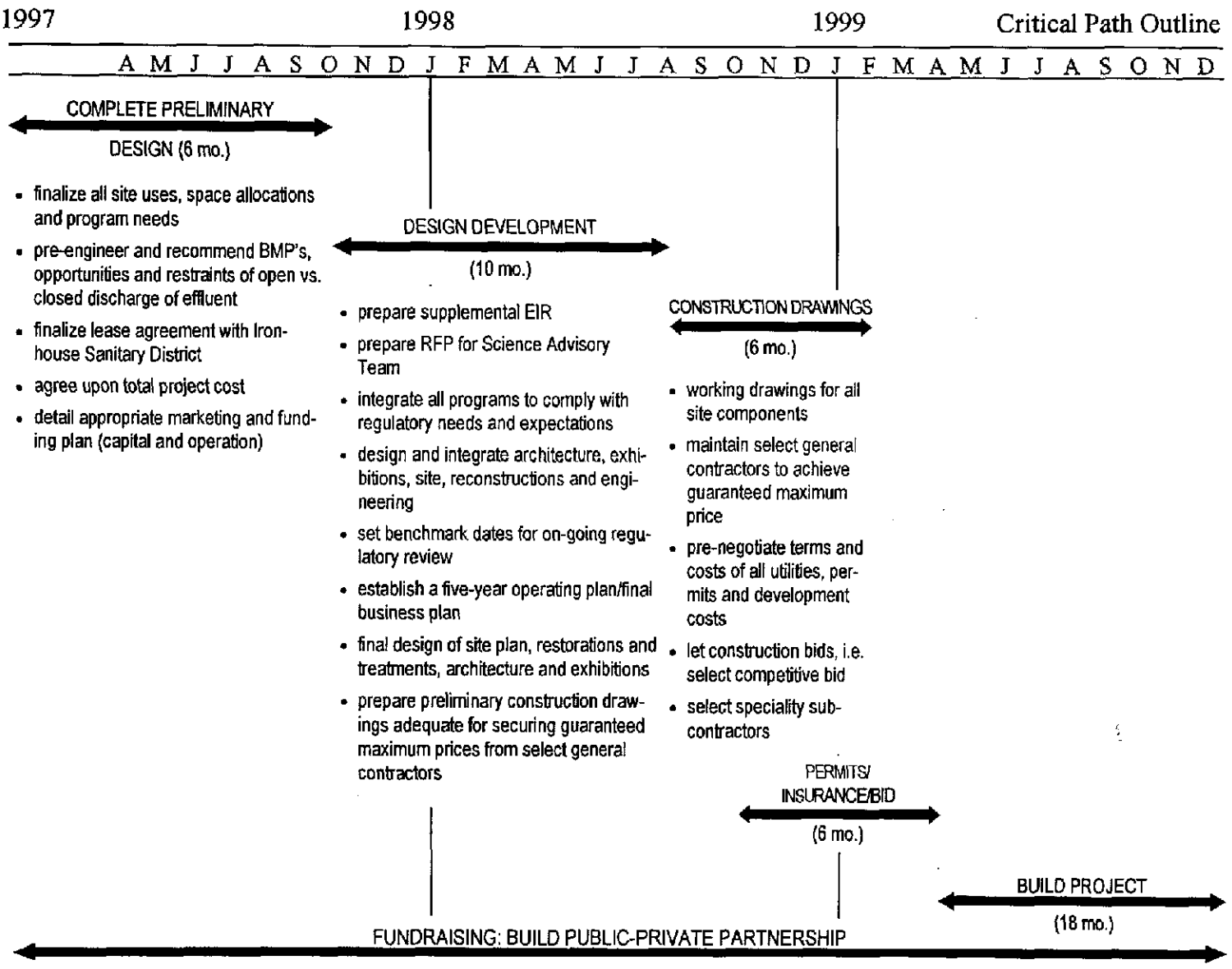
d. Background and Biological/Technical Justification

The Delta Science Center is at a critical juncture in its development, poised to develop its preliminary design plan into a permitted project ready to build. The preliminary plan, thanks to the strengths and diversity of its participating collaborators, has turned the need for improved Delta water quality, restoration and public education into opportunities for success. To date we have built a private-public partnership of Delta stakeholders willing to raise millions of private sector dollars in support of the effort; we have cultivated a pro-active sanitary district willing to push the envelope in lieu of maintaining its safe, protective regulatory status; and we have partnered with the East Bay Regional Park District to maximize the number and scale of Delta efforts in East Contra Costa County.

Existing site conditions and future opportunities warrant the effort to demonstrate (1) the multi-faceted benefits of using effluent to create riparian habitat, wetlands and uplands, (2) the effectiveness of constructed wetlands for wastewater treatment and (3) the untapped potential of using high quality effluent to replenish the fresh water flows to the Bay-Delta system. Despite the ecological and engineering successes of effluent wetlands such as Arcata Marsh, Hayward Marsh and Mountain View Sanitary District Marsh, additional education and demonstration projects are needed to help regulatory agencies and the public accept that effluent is truly recycled water, a new resource beneficial to the Delta. Without The Delta Science Center, a great opportunity will be lost, not only the potential loss of the project and its positive regional impacts, but the potential loss of vested, established institutions willing to cooperate, fundraise and apply adaptive management to the long-term success of the project. Over the past two years, The Delta Science Center has built a strong board of directors, and employed staff and consultants to prepare a feasibility study, a preliminary design proposal, and a fundraising/ marketing plan. It has also launched a successful pilot education program that has involved over two thousand students and teachers, K through graduate school, in on-water Delta studies, land-based tours, the development of curricula, libraries, educational videos and master's theses. In its brief tenure, the Center has raised over $400,000 in operating support to launch the collaboration, define its Delta niche and test the marketplace. Capital fundraising is discussed in section IV.a.

e. Proposed Scope of Work

A feasibility and marketing study was prepared by Mogavero-Notestine Associates, of Sacramento, in 1995/96. The approved study was then developed into a draft preliminary design plan in April 1997 (Barbata-Wells). Reaction to the plan has been very positive, eliciting unanimous votes of support by the respective boards of directors of The Delta Science Center (the operator) and the Ironhouse Sanitary District (the landlord). In June 1997, the Executive Committee of the Board of Directors for the East Bay Regional Park District unanimously supported the plan and directed staff to prepare a challenge grant proposal that could assist The Delta Science Center's effort to secure CALFED funding (discussed in section IV.a.).



The project team will complete Preliminary Design in October 1997. Our request of CALFED would fund the subsequent phases from Design Development through final permits and competitive construction bids (a 22-month process ending in April 1999). Phases and primary tasks are outlined in the attached Critical Path outline. Each task within each phase produces its own set of deliverables collated and packaged at the end of the phase. In addition to technical and financial reports at the end of each phase, we suggest a progress submittal two-thirds of the way through each phase to better assess direction, performance and/or need for project corrections. We are also agreeable to submitting quarterly financial and programmatic reports if that is preferable.

f. Monitoring and Data Evaluation

Monitoring and data evaluation are important components of The Delta Science Center project in order to best design, document and demonstrate (1) environmental benefits of the project, and (2) compliance of the effluent with discharge standards to protect public health and aquatic life. Because the project will be permitted under State Waste Discharge Requirements, there are institutional guarantees that habitat objectives will be met over time, and their management and monitoring are enforceable and efficacious in perpetuity. Table 4 contains a list of potential monitoring parameters, frequencies, and aspects of the restoration that they are intended to aid in evaluating. Using peer review and consultation with experts on specific habitats or species, these parameters and possibly others will be incorporated into the formal monitoring plan.

Monitoring would be conducted by different entities to achieve multiple objectives to ecosystem restoration, water quality and education opportunities. Ironhouse Sanitary District, in cooperation with The Delta Science Center, would not only monitor water quality, effluent contaminants, sediment quality, and biological tissues, but also the effectiveness of the riparian corridors and wetlands in improving water quality, especially with regard to nutrients, temperature, and dissolved oxygen. The monitoring of the plant, fish, bird and macro-invertebrate assemblages would support adaptive management and incorporate results from peer-reviewed scientific studies. It would also provide the opportunity to organize specialists, Science Center staff, high school and college students, scientific nonprofit organizations and voluntary organizations into monitoring, training, assessment and care of Delta resources.

g. Implementability

The final environmental impact report, Ironhouse Sanitary District Wastewater Facilities Plan & Delta Environment Science Center, approved in October, 1994.

Ironhouse Sanitary District owns the site free and clear of any liens or restrictions and has committed to provide the site to The Delta Science Center. Access is available and utilities are located nearby. Pertinent County land use designations are readily adapted to the project; the County is a partner and supporter of this project. Other required permits and approvals have been surveyed and are expected to be obtainable without major difficulty. An outline of The Delta Science Center was a subject in the final EIR for the Ironhouse Sanitary District and did not receive any adverse comment, nor identify hazardous or other adverse site conditions. Surrounding communities and the local press are strongly supporting the project.

TABLE 4

CONCEPTUAL MONITORING PLAN: PARAMETERS, PURPOSES, AND FREQUENCIES

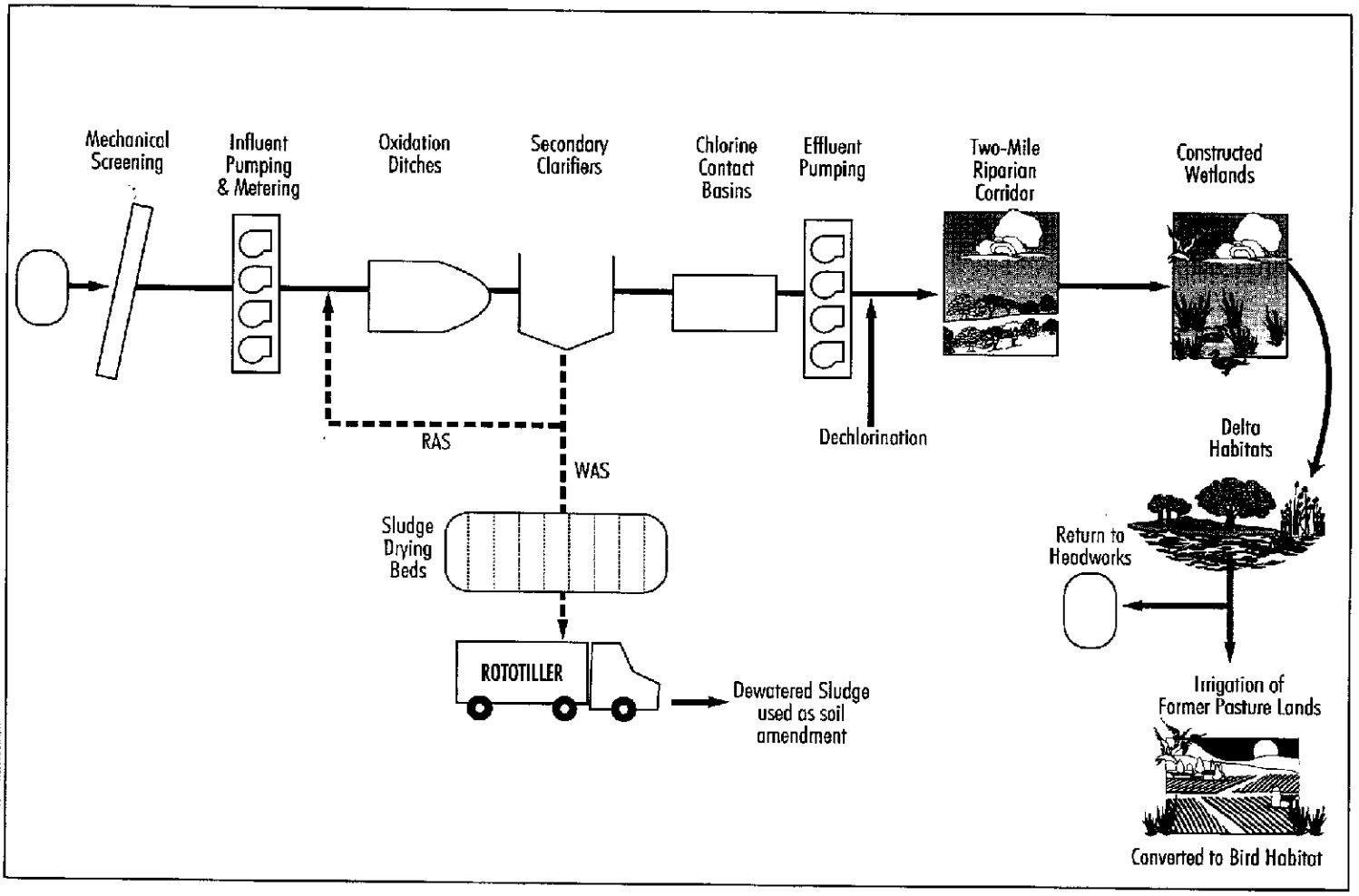
Monitoring Parameter	Purpose	Medium or Location	Frequency
WATER QUALITY INDICATORS			
Biochemical Oxygen Demand (BOD)	Treatment Efficiency of Sewage Plant, Riparian Corridor and Wetlands	Water	3/Week
Total Suspended Solids (TSS)	Treatment Efficiency of Sewage Plant, Riparian Corridor and Wetlands	Water	3/Week
Dissolved Oxygen (DO)	Environmental Benefit/Compliance	Water	Daily
Chlorine Residual	Verification of Dechlorination (to protect Aquatic Life)	Water	Continuous
Total and/or Fecal Coliform	Verification of Disinfection (to protect Public Health and Wildlife)	Water, Tissue	Daily
Temperature and pH	Treatment Efficiency of Sewage Plant, Riparian Corridor and Wetlands	Water	Daily
Ammonia, Nitrate/Nitrite, and Organic Nitrogen	Treatment Efficiency of Sewage Plant, Riparian Corridor and Wetlands	Water	Monthly
Phosphate	Treatment Efficiency of Sewage Plant, Riparian Corridor and Wetlands	Water	Monthly
Heavy Metals[1]	Treatment Efficiency of Sewage Plant, Riparian Corridor and Wetlands; Identify Need for Source Control, If Any	Water, Sediment, Tissue	Quarterly
Toxic Organic Compounds[1]	Treatment Efficiency of Sewage Plant, Riparian Corridor and Wetlands; Identify Need for Source Control, If Any	Water, Sediment, Tissue	Annually
4-Day Flow-through Acute Toxicity Bioassay	Treatment Efficiency of Sewage Plant, Riparian Corridor and Wetlands; Identify Need for Source Control, If Any	Water, After De-chlorination	Quarterly

TABLE 4 (cont.)

CONCEPTUAL MONITORING PLAN:
PARAMETERS, PURPOSES, AND FREQUENCIES

Monitoring Parameter	Purpose	Medium or Location	Frequency
BIOLOGICAL INDICATORS			
Fish Assemblage Analyses (e.g., Index of Biological Integrity or Rapid Bio-assessment Protocol)	Gauge Success of Colonization by Targeted Native Species, Identify Invasive Fish Species of Concern to Support Adaptive Management	Riparian Corridor, Wetlands	Seasonal, at least Annually
Macro-invertebrate Assemblage Analyses (e.g., Invertebrate Community Index)	Gauge Success of Colonization by Targeted Native Species, Identify Invasive Invertebrate Species of Concern to Support Adaptive Management	Riparian Corridor, Wetlands	Seasonal, at least Annually
Bird Assemblage Analyses	Gauge Success of Colonization by Targeted Native Species	Riparian Corridor, Wetlands	Seasonal, at least Quarterly
Reptile/Amphibian and Small Mammal Assemblage Analyses	Gauge Success of Colonization by Targeted Native Species, Identify Invasive Species of Concern to Support Adaptive Management	Riparian Corridor, Wetlands	Seasonal, at least Annually
Plant Transects	Gauge Success of Colonization by Targeted Native Species, Identify Invasive Plant Species of Concern to Support Adaptive Management	Riparian Corridor, Wetlands	Seasonal, at least Semi-annually
Population Dynamics Studies	Monitor long-term Trends in Targeted Populations in the Restored Habitats	Riparian Corridor, Wetlands	Annually
Plankton Surveys	Assess water quality through relative proportions of sensitive and insensitive species, changes in community structure	Riparian Corridor, Wetlands	Seasonal, at least Annually
Aquatic Insect Surveys	Assess water quality through relative proportions of sensitive and insensitive species, changes in community structure	Riparian Corridor, Wetlands	Seasonal, at least Annually
Canopy	Track the establishment of mature riparian vegetation over time	Riparian Corridor	Bi-annually

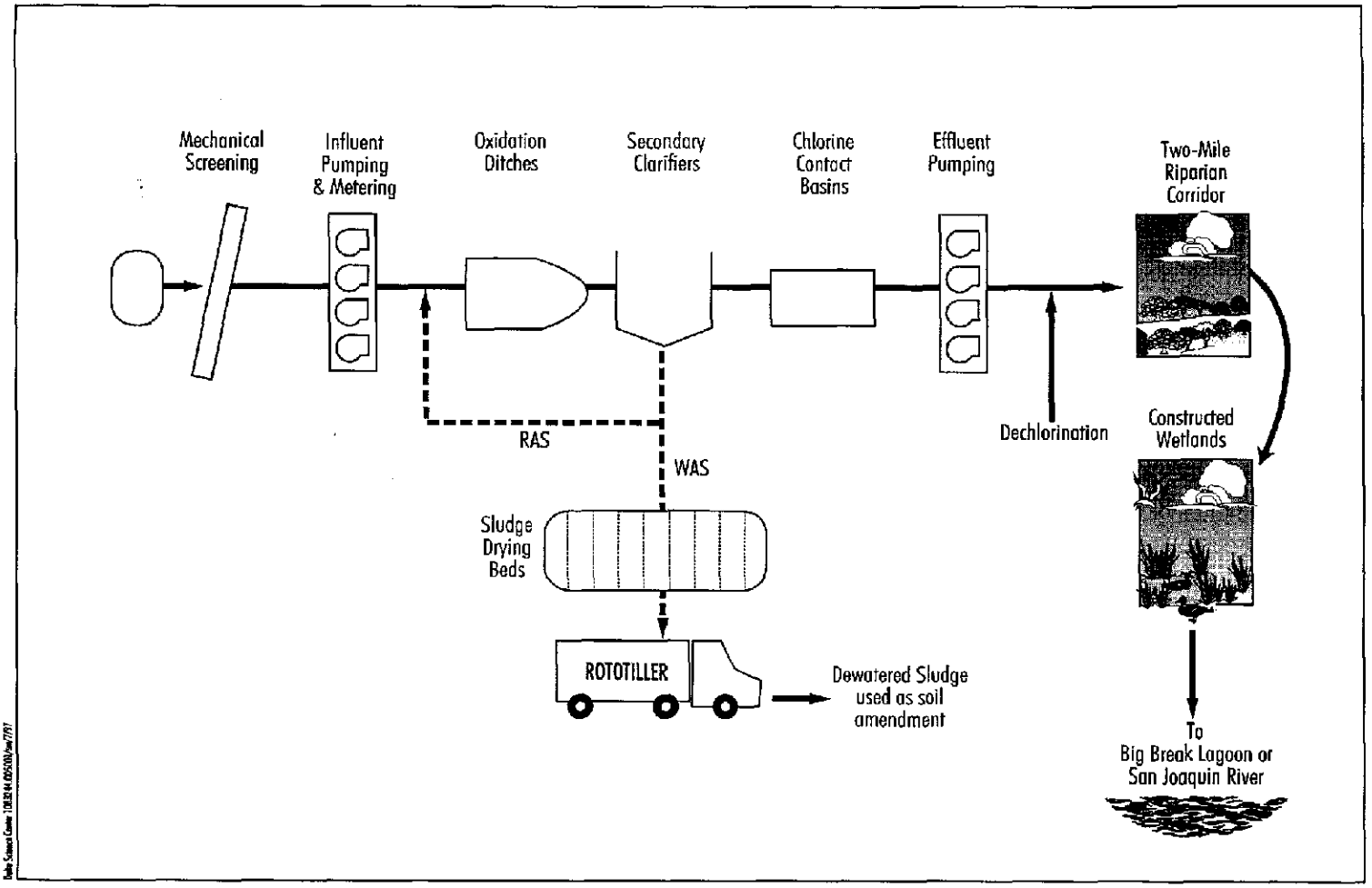
[1]These contaminants are not expected to be present at toxic levels in the ISD effluent, based on typical characteristics of domestic effluent with no industrial inputs.



Zero-Discharge Alternative - Ironhouse Sanitary District

FIGURE 1 PROCESS SCHEMATIC

MONTGOMERY WATSON



Surface Water Discharge Alternative - Ironhouse Sanitary District

FIGURE 2 PROCESS SCHEMATIC

MONTGOMERY WATSON

I-006503

IV. COSTS AND SCHEDULE TO IMPLEMENT PROPOSED PROJECT

a. Budget costs

The total program cost to complete the design and construction of The Delta Science Center is estimated to be $12,664,700. The specific task, Project Design & Implementation, for which we are requesting CALFED funding, is estimated to cost $2,035,200. We would propose a three-way partnership to share the total request: $1,375,200 by CALFED, $400,000 by the East Bay Regional Park District, and $260,000 plus by The Delta Science Center. The following Total Project Budget provides an overview of all costs and makes note of Project Design & Implementation which is the focus of this CALFED request.

SPACE NAME	AREA	CONSTRUCTION COST/SQ. FT.	SPACE COSTS
OFFSHORE ARK			
Laboratory/Exhibit	1,500 sq. ft.	$300	$450,000
Classrooms (3)	1,400 sq. ft.	200	280,000
Conference Center	2,500 sq. ft.	200	500,000
Boat Facilities	2,000 sq. ft.	100	200,000
Food Services	1,000 sq. ft.	220	220,000
Administration	700 sq. ft.	185	129,500
Restrooms	500 sq. ft.	200	100,000
	9,600 sq. ft.		$1,879,500
DELTA CENTER			
Reception	1,000 sq. ft.	$150	$ 150,000
Exhibitions	7,000 sq. ft.	375	2,625,000
Store	500 sq. ft.	200	100,000
Administration	2,000 sq. ft.	135	270,000
Restrooms	500 sq. ft.	150	75,000
Storage	1,000 sq. ft.	125	125,000
	12,000 sq. ft.		$3,345,000
SITE RECONSTRUCTIONS			
Restoration Labs	1.1 acre	Allowance	300,000
Constructed Habitats	6.5 acres	$200,000 per acre	1,300,000
Treatment Marshes	3.5 acres	$200,000 per acre	700,000
Riparian Corridors	2 miles	Allowance (14 acres)	1,500,000
Marsh Creek	NIC		-0-
			$3,800,000
SITE WORK			
Parking/Circulation	150,000 sq. ft.	$3 sq. ft.	$ 450,000
Entry Road	1 mile		300,000
Int. Boardwalks	1,100 lin. ft.	$150 per ft.	165,000
Educ. Pavilions/Posts	1,200 sq. ft.	$75 sq. ft.	90,000
Thematic Artworks		Allowance	300,000
			$1,305,000
EQUIPMENT ALLOWANCE			
Boats, tools, lab equip., etc.			$ 300,000
PROJECT DESIGN & IMPLEMENTATION			
Architect Fees			$ 400,000
Engineering Services			300,000
Exhibit Design			400,000
Landscape - Restoration Design			360,000
Fees, Utilities & Permits		Allowance	400,000
			$1,860,000
Project Director			175,200
TOTAL W/O CONT. AND W/O ENDOWMENT			$12,664,700

Our basic approach to the Project Design & Implementation, its phases and tasks, its deliverables and their costs, is simple and straightforward. The approach assumes three phases of delivered products: 1) Design Development, 2) Construction Drawings, and 3) a Permitted, Insured and Bid Project. Identified costs are service contracts with a select number of design and engineering firms. The only exception is a 12% general overhead fee that funds the significant time/role assumed by the Project Director to organize the effort, assure contractor performance, and meet the standards and needs of all reviewers, including regulators and funders. Bottom line, our approach is a great project, built on time and within budget.

The project also assumes additional costs not identified in this proposed project budget. The primary extra cost is an RFP from science advisors on project design and program monitoring design. The RFP will be prepared and advertised to maximize its efficiency and efficacy early in the Design Development Phase. Considerable scientific input from U.C. Davis, Cal State Hayward and Montgomery Watson has already infused this project. All agree that a focused RFP in early Design Development will produce the best team with maximum input. Our consultant, Montgomery Watson, has advised The Delta Science Center to budget up to $225,000 for this effort. The Science Center also assumes the significant cost of a supplemental EIR estimated to cost up to $100,000. Any additional miscellaneous and direct costs, e.g. blueprint and secretarial services, will also be assumed by The Delta Science Center. These contingencies increase the Science Center's direct project contribution from $260,000 to a minimum of $585,000.

CALFED support at the early stage of development for The Delta Science Center would greatly enhance its prospects for ultimate success. Launching a new nonprofit public benefit institution is never easy, and securing funds for design development and professional services are the most difficult funds of all to raise. CALFED support would not only legitimize the effort, it would free The Delta Science Center collaboration to focus on what it can do best: raise capital funds for building, operating and endowing the project. Our fundraising efforts have identified significant funds available to support construction, once we provide documentation for a project that can be built. Science Center supporters, including the East Bay Regional Park District, California State University at Hayward and Contra Costa Community College District, can provide and leverage sizable capital gifts. We are also encouraged by steady, reliable operating gifts by industry and foundations, all interested in larger roles during capital construction. It is a chicken and egg problem, one that requires bold initiatives and demonstrations of leadership. If we can convince CALFED that its goals and objectives encompass the mission of The Delta Science Center, we are confident we can build a successful public-private partnership and deliver a great project for the people of California. To demonstrate its leadership and belief in this project, the East Bay Regional Park District is considering a $300,000 to $600,000 gift to be used as a match in this Science Center proposal to CALFED. The Park District's Board of Directors will vote on the matter in September 1997 (see attached letter, last page of proposal).

With CALFED cooperation and Science Center compliance with State Government Code 4525, it is our intention to identify a highly qualified and creative team of designers, architects and engineers to undertake the formidable task of realizing this project. Our justification and their qualifications are documented in Section V.

b. Schedule Milestones

The start/completion dates already identified call for a 22-month project in three discrete phases, each accompanied by an interim progress report two-thirds of the way through each phase. Each phase is concluded with a complete package of deliverables to demonstrate performance. Ideally, the schedule of payments should promptly reimburse work accomplished. Payments made in arrears on a monthly basis would also be acceptable. To protect the interests of funders and maximize the performance and good will of consultants, we can manage a 60% payment (by phase) upon the acceptance of the interim progress report, followed by a 40% payment upon the acceptance of the deliverables at the end of each phase. We are also open to negotiate other payment schedules.

c. Third Party Impacts

At this time we cannot quantify any anticipated or potential third party impacts that would result from implementation of this project, and associated mitigation measures. The project is well known in the Oakley area and has received only positive support. The one project neighbor, Emerson Dairy, is represented by Stan Emerson on the Science Center's Board of Directors.

Project Cost Breakdown

PROJECT PHASE	TASKS	LABOR HOURS	SERVICE CONTRACTS	PROJECT DIRECTOR	TOTAL COST
Preliminary design (final, funded plan due September 1997)					-0-
Design Development (10 months)	• prepare supplemental EIR; cost assumed by DSC				-0-
	• prepare RFP for Science Advisory Team; cost assumed by DSC				-0-
	• design/develop architectural program & site engineering	2,000	architectural consultant		200,000
	• design/develop exhibitions, programs, site installations	1,800	design consultant		180,000
	• design/develop wetlands, riparian corridors & habitats	1,500	landscape consultant		150,000
	• design/develop biological effluent treatment system	1,000	engineering consultant		100,000
	• prepare final design/development drawings		all consultants		
	• prepare preliminary construction drawings for GMP estimates		all consultants		
	• project director oversight, manage regulating needs/ expectations, integrate work of Science Advisors			12% of phase	
				$87,600	$630,000 75,600
TOTAL COST DESIGN DEVELOPMENT PHASE					$705,600

PROJECT PHASE	TASKS	LABOR HOURS	SERVICE CONTRACTS	PROJECT DIRECTOR	TOTAL COST
Construction Drawings (6 months)	• working drawings for all site architecture & engineering	1,400	architectural consultant		140,000
	• working drawings for all exhibitions, program spaces & site installations, prepare camera ready art	1,400	design consultant		180,000
	• working drawings for wetlands, riparian corridors and habitats	1,500	landscape consultant		150,000
	• working drawings for biological effluent treatment system	1,200	engineering consultant		120,000
	• integrate all drawings into preliminary bid and regulatory review package		all consultants		
	• project director oversight, negotiate utilities, permits and development costs, develop GMP with one to three general contractors			12% of phase	
				$70,800	$590,000 70,800
TOTAL COST CONSTRUCTION DRAWING PHASE					$660,800

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PROJECT PHASE	TASKS	LABOR HOURS	SERVICE CONTRACTS	PROJECT DIRECTOR	TOTAL COST
Permits bid & construction oversight	• review bids & provide project management services	600	architectural consultant		60,000
	• review bids, provide project management & oversee specialty vendor services	400	design consultant		40,000
	• review bids & provide project management services on site	600	landscape consultant		60,000
	• review bids and provide project management services, manage permit procedures	800	engineering consultant		80,000
	• project director maintains responsibility for total project management, including construction			12% of phase	
				$28,800	$240,000 28,800
Carry $400,000 allowance for fees, utilities & permits					$400,000
TOTAL COST PERMIT/BID PHASE					$668,800

Total cost of all service contracts	$1,460,000
Allowance for fees, utilities and permits	400.000
Subtotal	$1,860,000
12% fee for project management	175,200
TOTAL PROJECT COST	**$2,035,200**

V. Applicant Qualifications

Like many good projects, the idea of a Delta Science Center began over a cup of coffee and conversation, in this case, by a local educator and a director for the Ironhouse Sanitary District in Oakley, California. Education needs in East Contra Costa County and concerns about the future of the Sacramento-San Joaquin Delta seemed obvious, and mitigation requirements had to be met for the Sanitary District to expand its wastewater treatment plant. Ironhouse made a bold move. In lieu of many possible and more traditional mitigations, it offered public access to its considerable Delta land holdings, provided the needs of wastewater treatment and public access could, together, be met. Regional ideas for Delta Education and restoration took hold and began to attract many Delta stakeholders, including government, industry, farmers, educators and environmentalists. The Delta Science Center collaboration now includes not only East County Schools and Ironhouse Sanitary District, but also Contra Costa County, East Bay Regional Park District, Contra Costa Water District, Contra Costa Community College District, California State University at Hayward, Contra Costa County Mosquito Abatement and Vector Control, Emerson Dairy, the Sierra Club and Audubon Society, and PG&E Bay-Delta Power Plants. All the collaborators are represented on The Delta Science Center Board of Directors by elected officials and/or top administrators. The President of the Board, Katherine Ripley-Williams, is the Associate Director of Corporate Foundation Relations for the University of California San Francisco, adding great experience and leadership to building our private-public partnership.

In May 1996, the directors hired Stephen Barbata as their Executive Director to develop the project and its capital campaign. Mr. Barbata, who would serve as the project director for this CALFED proposal, brings twenty-five years of experience in the design, building and funding of public institutions. In his roles as project manager/director and executive director, he successfully developed The Coyote Point Museum for Environmental Education in San Mateo, California — *California Communities and Ecosystems*, the permanent natural sciences galleries of the Oakland Museum — *Wild California*, a major renovation of the North American Hall at the California Academy of Sciences — and the Lindsay Wildlife Museum in Walnut Creek, California, where he was also responsible for the successful completion of its $8 million capital campaign.

To develop the Preliminary Design for the proposed Delta Science Center, Mr. Barbata assembled a very talented, highly qualified team. With the cooperation of CALFED and compliance with State Government Code 4525, we would propose their services for project implementation. They are:

Engineering and Water Quality

Montgomery Watson, the internationally recognized environmental engineering firm, and wastewater treatment firm of record for the Ironhouse Sanitary District. The principals they propose for this project include: Bill Blaylock, with over 17 years' experience in environmental analysis, regulatory compliance, and fisheries investigations; Robert B. Morrow, Senior Environmental Scientist with 15 years' experience in aquatic habitat assessment and restoration, fisheries biology and monitoring program design; Brian D. Liming, a civil engineer with 18 years' experience specialized in stream enhancement and restoration; Jennifer Skrel, a principal engineer with 18 years' experience designing wastewater treatment facilities with applied knowledge of constructed wetlands for effluent disposal; and Steve

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Moore with 6 years' experience as an environmental professional, including four years as a staff engineer for the San Francisco Bay Regional Water Quality Control Board.

Architecture

Fernau & Hartman Architects was formed in 1980 and immediately established a unique reputation for diversity and excellence. With their first three projects they won awards for architectural design, interior design and technical innovation. Relevant projects include the Strybing Arboretum and Botanical Garden: Master Plan and Renovation, the Napa Valley Museum and Frankfurt Kinderlagestatte in Frankfurt, Germany.

Program and Exhibition Design

William S. Wells Design has over 25 years' experience in the design of information in the form of public exhibitions and educational publications in the natural sciences and cultural history. Giving form to complex information that enlightens an interested public is clearly expressed in his museum masterplans and exhibit projects which include: the Humphry Forum, Minneapolis, Minnesota — Rancho Los Alamitos, Long Beach, California — National Maritime Museum, San Francisco, California — Lindsay Wildlife Museum, Walnut Creek, California — the Cowell Hall of California History at the Oakland Museum — and the Hayden Planetarium in New York, New York.

Landscape Architecture

Ron Lutsko, Jr., is a widely acclaimed and honored landscape designer with a strong background in botany and horticulture. A pioneer in the use of native plants, Mr. Lutsko now complements his landscape practice with teaching at both the University of California Davis and the University of California Berkeley. Relevant projects include: The Serpentine Garden at the University of California Botanical Garden, Berkeley, California — the LEF Foundation gardens, St. Helena, California — The Arthur L. Menzies Garden of California Native Plants, Strybing Arboretum, San Francisco, California — and the Redding Arboretum, Redding, California.

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VI. Compliance

Attached are the forms consistent with the Delta Science Center application type. All the terms and conditions are agreeable and can be complied with by the applicant.

Item 1

Agreement No. _____

Exhibit _____

STANDARD CLAUSES – CONTRACTS WITH PUBLIC ENTITIES

Workers' Compensation Clause. Contractor affirms that it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insu against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and Contractor affirms that it will comply with s provisions before commencing the performance of the work under this contract.

Claims Dispute Clause. Any claim that Contractor may have regarding the performance of this agreement including, but not limited to, claims for additional compensatio Executive Director, CALFED Bay-Delta Program or its designee extension of time, shall be submitted to the within thirty days of its accrual. State and Contractor shall then attempt to negotiate a resolu of such claim and process an amendment to this agreement to implement the terms of any such resolution. (NF w/F)

Nondiscrimination Clause. During the performance of this contract, the recipient, Contractor and its subcontractors shall not deny the contract's benefits to any person on the b of religion, color, ethnic group identification, sex, age, physical or mental disability, nor shall they discriminate unlawfully against any employee or applicant for employment beca of race, religion, color, national origin, ancestry, physical handicap, mental disability, medical condition, marital status, age (over 40), or sex. Contractor shall insure that evaluation and treatment of employees and applicants for employment are free of such discrimination. Contractor shall comply with the provisions of the Fair Employment Housing Act (Government Code Section 12900 et seq.), the regulations promulgated thereunder (California Administrative Code, Title 2, Sections 7285.0 et seq.), the provisi of Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (Government Code Sections 11135 - 11139.5), and the regulations or standards adopted by the award State agency to implement such article. Contractor or recipient shall permit access by representatives of the Department of Fair Employment and Housing and the awarding S agency upon reasonable notice at any time during the normal business hours, but in no case less than 24 hours' notice, to such of its books, records, accounts, other sources information and its facilities as said Department or Agency shall require to ascertain compliance with this clause. Recipient, Contractor and its subcontractors shall give written no of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement. The Contractor shall include the nondiscrimina and compliance provisions of this clause in all subcontracts to perform work under the contract.

Availability of Funds. Work to be performed under this contract is subject to availability of funds, Category III

Audit Clause. For contracts in excess of $10,000, the contracting parties shall be subject to the examination and audit of the State Auditor for a period of three years after fi payment under the contract. (Government Code Section 8546.7).

Payment Retention Clause. Ten percent of any progress payments that may be provided for under this contract shall be withheld per Public Contract Code Sections 10346 a 10379 pending satisfactory completion of all services under the contract.

Reimbursement Clause. If applicable, travel and per diem expenses to be reimbursed under this contract shall be at the same rates the State provides for unrepresented employ in accordance with the provisions of Title 2, Chapter 3, of the California Code of Regulations. Contractor's designated headquarters for the purpose of computing such expen shall be: N/A.

Termination Clause. The State may terminate this contract without cause upon 30 days' advance written notice. The Contractor shall be reimbursed for all reasonable expen incurred up to the date of termination.

Drug-Free Workplace Certification. By signing this contract, the Contractor or grantee hereby certifies under penalty of perjury under the laws of the State of California th the Contractor or grantee will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code Section 8350 et seq.) and will provide a drug-free workpla by taking the following actions:

1. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actio to be taken against employees for violations.

2. Establish a Drug-Free Awareness Program to inform employees about all of the following:
   (a) The dangers of drug abuse in the workplace,
   (b) The person's or organization's policy of maintaining a drug-free workplace,
   (c) Any available counseling, rehabilitation and employee assistance programs, and
   (d) Penalties that may be imposed upon employees for drug abuse violations.

3. Every employee who works on the proposed contract or grant:

   (a) Will receive a copy of the company's drug-free policy statement, and
   (b) Will agree to abide by terms of the company's statement as a condition of employment on the contract or grant.

This contract or grant may be subject to suspension of payments or termination, or both, and the Contractor or grantee may be subject to debarment if the department determin that: (1) the Contractor or grantee has made a false certification, or (2) the Contractor or grantee violates the certification by failing to carry out the requirements noted above.

Americans With Disabilities Act. By signing this contract, Contractor assures the State that it complies with the Americans With Disabilities Act (ADA) of 1990. (42 U.S.C. 121 et seq.), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA.

Conflict of Interest. Current State Employees: a) No State officer or employee shall engage in any employment, activity or enterprise from which the officer or employee receiv compensation or has a financial interest and which is sponsored or funded by any State agency, unless the employment, activity or enterprise is required as a condition of regul State employment. b) No State officer or employee shall contract on his or her own behalf as an independent contractor with any State agency to provide goods or services.

Former State Employees: a) For the two-year period from the date he or she left State employment, no former State officer or employee may enter into a contract in which he or sh engaged in any of the negotiations, transactions, planning, arrangements or any part of the decision-making process relevant to the contract while employed in any capacity by a State agency. b) For the twelve-month period from the date he or she left State employment, no former State officer or employee may enter into a contract with any State agen if he or she was employed by that State agency in a policy-making position in the same general subject area as the proposed contract within the twelve-month period prior to his her leaving State service.

Item 2 (p 1/2)

Agreement No. _____

Exhibit _____

STANDARD CLAUSES - SERVICE & CONSULTANT SERVICE CONTRACTS FOR $5,000 & OVER WITH NONPUBLIC ENTITIES

Workers' Compensation Clause. Contractor affirms that it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and Contractor affirms that it will comply with such provisions before commencing the performance of the work under this contract.

Claims Dispute Clause. Any claim that Contractor may have regarding the performance of this agreement including, but not limited to, claims for additional compensation or extension of time, shall be submitted to the Executive Director, CALFED Bay-Delta Program, or its designee, within thirty days of its accrual. State and Contractor shall then attempt to negotiate a resolution of such claim and process an amendment to this agreement to implement the terms of any such resolution (NFWF)

National Labor Relations Board Clause. In accordance with Public Contract Code Section 10296, Contractor declares under penalty of perjury that no more than one final, unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two-year period because of Contractor's failure to comply with an order of a federal court which orders Contractor to comply with an order of the national Labor Relations Board.

Nondiscrimination Clause. During the performance of this contract, the recipient,Ccontractor and its subcontractors shall not deny the contract's benefits to any person on the basis of religion, color, ethnic group identification, sex, age, physical or mental disability, nor shall they discriminate unlawfully against any employee or applicant for employment because of race, religion, color, national origin, ancestry, physical handicap, mental disability, medical condition, marital status, age (over 40), or sex. Contractor shall insure that the evaluation and treatment of employees and applicants for employment are free of such discrimination. Contractor shall comply with the provisions of the Fair Employment and Housing Act (Government Code Section 12900 et seq.), the regulations promulgated thereunder (California Administrative Code, Title 2, Sections 7285.0 et seq.), the provisions of Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (Government Code Sections 11135 - 11139.5), and the regulations or standards adopted by the awarding State agency to implement such article. Contractor or recipient shall permit access by representatives of the Department of Fair Employment and Housing and the awarding State agency upon reasonable notice at any time during the normal business hours, but in no case less than 24 hours' notice, to such of its books, records, accounts, other sources of information and its facilities as said Department or Agency shall require to ascertain compliance with this clause. Recipient, Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement. The Contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the contract.

Statement of Compliance. The Contractor's signature affixed hereon and dated shall constitute a certification under penalty of perjury under the laws of the State of California that the Contractor has, unless exempted, complied with the nondiscrimination program requirements of Government Code Section 12990 and Title 2, California Code of Regulations, Section 8103.

Performance Evaluation. For consulting service agreements, Contractor's performance under this contract will be evaluated after completion. A negative evaluation will be filed with the Department of General Services.

Category III

Availability of Funds. Work to be performed under this contract is subject to availability of funds.

Audit Clause. For contracts in excess of $10,000, the contracting parties shall be subject to the examination and audit of the State Auditor for a period of three years after final payment under the contract. (Government Code Section 8546.7).

Payment Retention Clause. Ten percent of any progress payments that may be provided for under this contract shall be withheld per Public Contract Code Sections 10346 and 10379 pending satisfactory completion of all services under the contract.

Reimbursement Clause. If applicable, travel and per diem expenses to be reimbursed under this contract shall be at the same rates the State provides for unrepresented employees in accordance with the provisions of Title 2, Chapter 3, of the California Code of Regulations. Contractor's designated headquarters for the purpose of computing such expenses shall be: N/A.

Termination Clause. The State may terminate this contract without cause upon 30 days' advance written notice. The Contractor shall be reimbursed for all reasonable expenses incurred up to the date of termination.

Minority/Women/Disabled Veteran Business Enterprise Participation Requirement Audit Clause. Contractor or vendor agrees that the awarding department or its delegates will have the right to review, obtain, and copy all records pertaining to performance of the contract. Contractor or vendor agrees to provide the awarding department or its delegatee access to its premises, upon reasonable notice, during normal business hours for the purpose of interviewing employees and inspecting and copying such books, records, accounts, and other material that may be relevant to a matter under investigation for record keeping purposes. Contractor or vendor further agrees to maintain such records for a period of three (3) years after final payment under the contract. Title 2 CCR Section 1896.75

Priority Hiring Considerations. For contracts in excess of $200,000, the Contractor shall give priority consideration in filling vacancies in positions funded by the contract to qualified recipients of aid under Welfare and Institutions Code Section 11200. (Public Contract Code Section 10353)

Item 2
(p 2/2)

Drug-Free Workplace Certification. By signing this contract, the Contractor or grantee hereby certifies under penalty of perjury under the laws of the State of California that the Contractor or grantee will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code Section 8350 et seq.) and will provide a drug-free workplace by taking the following actions:

1. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.

2. Establish a Drug-Free Awareness Program to inform employees about all of the following:

   (a) The dangers of drug abuse in the workplace,
   (b) The person's or organization's policy of maintaining a drug-free workplace,
   (c) Any available counseling, rehabilitation and employee assistance programs, and
   (d) Penalties that may be imposed upon employees for drug abuse violations.

3. Every employee who works on the proposed contract or grant:

   (a) Will receive a copy of the company's drug-free policy statement, and
   (b) Will agree to abide by terms of the company's statement as a condition of employment on the contract or grant.

This contract or grant may be subject to suspension of payments or termination, or both, and the Contractor or grantee may be subject to debarment if the department determines that: (1) the Contractor or grantee has made a false certification, or (2) the Contractor or grantee violates the certification by failing to carry out the requirements noted above.

Antitrust Claims. In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder. See Government Code Section 4552.

If an awarding body or public purchasing body received, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery. See Government Code Section 4553.

Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action. See Government Code Section 4554.

Americans With Disabilities Act. By signing this contract, Contractor assures the state that it complies with the Americans With Disabilities Act (ADA) of 1990, (42 U.S.C. 12101 et seq.), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA.

Corporate Qualifications To Do Business in California. Contractor must be currently qualified to do business in California as defined by the Revenue & Taxation Code, Section 23101 unless exempted. Both domestic and foreign corporations (those incorporated outside of California) must be in good standing in order to be qualified to do business in California.

Conflict of Interest. Current State Employees: a) No State officer or employee shall engage in any employment, activity or enterprise from which the officer or employee receives compensation or has a financial interest and which is sponsored or funded by any State agency, unless the employment, activity or enterprise is required as a condition of regular State employment. b) No State officer or employee shall contract on his or her own behalf as an independent contractor with any State agency to provide goods or services.

Former State Employees: a) For the two-year period from the date he or she left State employment, no former State officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements or any part of the decision-making process relevant to the contract while employed in any capacity by any State agency. b) For the twelve-month period from the date he or she left State employment, no former State officer or employee may enter into a contract with any State agency if he or she was employed by that State agency in a policy-making position in the same general subject area as the proposed contract within the twelve-month period prior to his or her leaving State service.

Item 7

BIDDER'S BOND

We _____

_____

_____, as PRINCIPAL, and

_____

_____

_____

as SURETY, are held and firmly bound unto the State of California in the penal sum of TEN PERCENT (10%) OF THE TOTAL AMOUNT OF THE BID of the Principal above named submitted by said Principal to the State of California, acting by and through the Agency Secretary of the Resources Agency for the work described below, for the payment of which sum in lawful money of the United States, well and truly to be made, to the Agency Secretary of the Resources Agency to which said bid was submitted, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

In no case shall the liability of the surety here under exceed the sum of $_____

THE CONDITION OF THIS OBLIGATION IS SUCH,

That whereas the Principal has submitted the above-mentioned bid to the State of California, as aforesaid, for certain construction specifically described as follows, ~~for which bids are to be opened at~~

_____, ~~California on~~ _____,

~~(Insert name of city where bids will be opened)~~ ~~(insert date of bid opening)~~

for _____

_____

_____

_____

(Copy here the exact description of work, including location, as it appears on the proposal)

NOW, THEREFORE, If the aforesaid Principal is awarded the contract and, within the time and manner required under the specifications, after the prescribed forms are presented to him for signature, enters into a written contract, in the prescribed form, in accordance with the bid, and files two bonds with the Department, one to guarantee faithful performance and the other to guarantee payment for labor materials, as required by law, then this obligation shall be null and void; otherwise, it shall be and remain in full force and virtue.

IN WITNESS WHEREOF, We have hereunto set our hands and seals on this _____

day of _____, 19 ____.

_____ (Seal)

_____ (Seal)

_____ (Seal)

Principal

_____ (Seal)

_____ (Seal)

_____ (Seal)

Surety

_____ (Seal)

Address _____

NOTE: Signatures of those executing for the surety must be properly acknowledged.

REGIONAL PARKS

EAST BAY REGIONAL PARK DISTRICT

July 18, 1997

Mr. Steve Barbata
Executive Director
Delta Science Center
P.O. Box 1105
Oakley, CA 94561

Dear Mr Barbata:

This letter is to confirm the status of the East Bay Regional Park District's commitment to the construction of the Delta Science Center. As noted in previous correspondence, the District finds that the environmental education opportunities provided by this proposed facility will provide a significant opportunity for public access and educational needs in the Delta Area. The District also strongly supports this project as an integral component in our ongoing effort to acquire, restore, and provide public access to the Big Break area and adjacent shoreline properties. Both the District and the Science Center are seeking funds from CALFED for different phases of this regional effort, and you have requested a formal confirmation of the conditions of our partnership.

The District has previously extended an offer of a challenge grant to the Delta Science Center for the construction of your educational facility. The District's intent has been to commit funds from our Park, Recreation and Shoreline bond under a provision that allows the use of bond funds to match funding for projects of mutual interest to the District and other local entities. We are in receipt of your July 16th grant request and will be bringing this forward to the District Board in September with an affirmative staff recommendation for funding.

As you are aware, the District's Measure AA funds are restricted to capital acquisition and development, and cannot fund the planning or operation of facilities; therefore, the District is supportive of your CALFED application for planning work that could provide the means of moving forward in a cooperative manner with the design and construction of the facility. Once CALFED has approved your application, the District looks forward to working with you to seek funding for construction of the facility.

Thank you for the opportunity to support you in your work on this important project.

Sincerely,

Pat O'Brien

Pat O'Brien
General Manager

2950 Peralta Oaks Court P.O. Box 5381 Oakland, CA 94605-0381 Tel: (510) 635-0135 TDD: (510) 633-0460 Fax: (510) 569-4319

NONDISCRIMINATION COMPLIANCE STATEMENT

COMPANY NAME
The Delta Science Center at Big Break

The company named above (hereinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave and denial of pregnancy disability leave.

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

OFFICIAL'S NAME
Stephen Barbata

DATE EXECUTED	EXECUTED IN THE COUNTY OF
July 28, 1997	Contra Costa

PROSPECTIVE CONTRACTOR'S SIGNATURE
Stephen Barbata

PROSPECTIVE CONTRACTOR'S TITLE
Executive Director

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME
The Delta Science Center at Big Break

I-006518